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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/568,702

Applicant(s)

QIAO ET AL.

Examiner

YOSIEF BERHANE

Art Unit

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. Claims **1-8** have been examined and are pending.

RESPONSE TO ARGUMENTS:

2. page 13 of applicants response, regarding independent claim 1, applicant argues that Akman does not teach “the forwarding manner by using transaction number replacement and endpoint identifiers of claim 1”
3. Further on page 17, regarding claims 5 and 8, applicant argues that Akman and RFC 3015 reference do not teach “creating or modifying a corresponding media forwarding port and a forwarding table on the agent equipment after receiving a signaling for establishing or modifying a connection sent to a media gateway from the media gateway controller”
4. Also, on page 18 applicant argues that Akman and RFC 3015 do not teach “sending a signaling for releasing the connection to the media gateway from the media gateway controller after calling finishes, releasing the corresponding forwarding port on the agent equipment according to the endpoint identifier, and then forwarding the signaling to the media gateway”
5. Applicant arguments are persuasive but moot in light of new rejection.

Double Patenting

6. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).
7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
8. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.
9. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:
11. **Claim 1** is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10567136 (hereinafter referred to as just 'Copending application') and further in view of application 2003/0033418 to Young et al.
12. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons:
13. **As per claim 1**, Both application recite: a method for realizing signaling agent based on a media gateway control protocol, comprising: providing an agent equipment between media gateways and a media gateway controller that locate in different networks (Claim 1 of Copending application recites: network system comprising media gateways and a media gateway controller in different networks and at least one agent equipment on a boundary of different networks where a MEGACO protocol is adopted)
14. the agent equipment providing signaling agent and network address translation between different networks (Claim 1, Copending application recites: agent equipment on a boundary of different networks, wherein the agent equipment has at least two network addresses. Note as specified in Copending application, paragraph 0032, agent equipment is provided for signaling and network address translation);
15. and requesting to register the media gateway controller from a media gateway; wherein (Claim 1 of Copending application recites: a media gateway requesting be registered to the media gateway controller);

16. for a MGCP/MEGACO signaling sent from the media gateway to the media gateway controller, if not related to media (Claim 1 of Copending Application recites: for a MEGACO signaling that is unrelated to media stream ports of the media gateway),
17. and if the MGCP/MEGACO signaling is related to media, processing a media attribute correspondingly by the agent equipment and then forwarding (Claim 1 of Copending Application recites: for a MEGACO signaling that is concerned with the media stream port the agent equipment processing media stream attributes correspondingly and then forwarding the signaling);
18. and for a MGCP/MEGACO signaling sent from the media gateway controller to media gateway (Claim 1 of Copending application recites: MEGACO signaling for establishing or modifying media stream port sent to the media gateway from the media gateway controller),
19. sending the request message to corresponding media gateway by the agent equipment according to domain name in endpoint identifier (claim 1 of Copending Application recites: replacing relevant media information in the MEGACO signaling with corresponding network address information of media stream forwarding port on the agent equipment and forwarding the signaling to corresponding media gateway).
20. Although the Copending application recites forwarding according to domain name in message identifier (Claim 1 of Copending application recites: the agent equipment directly forwarding the signaling according to a message identifier in the signaling. Note, paragraph 0034 of Copending application discloses that message identifier comprises domain name/IP address)
21. The copending application does not disclose expressly: directly replacing a transaction number by the agent equipment;

22. Paragraph 0009, Young discloses the MALG (claimed agent equipment) replaces MGCP private Transaction ID with a public Transaction ID, and then transmits the packet over a public User Datagram Protocol (UDP) port number.
23. Young and Copending Application are analogous art because they are from the same field of endeavor dealing specifically with communication between media gateways and media gateway controllers utilizing a Media Gateway Control Protocol.
24. At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the Copending Application by replacing a transaction ID, as suggested by Young.
25. The suggestion/motivation for doing so would have been to enhance the level of security for communications between media gateways and media gateway controllers utilizing a Media Gateway Control Protocol (Paragraph 0008, Young).
26. Therefore it would have been obvious to combine Young with the Copending application for the benefit of adding security in a communication network utilizing MGCP, to obtain the invention as specified in claim 1.
27. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
29. (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. Claims **1-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent 7,146,410 to Akman and further in view of publication 2002/0150221 to Carson et al. (hereinafter Carson) as well as publication 2003/0093563 to Young et al. (hereinafter Young).
31. **As per claim 1**, Akman teaches a method for realizing signaling agent based on a media gateway control protocol, comprising: providing an agent equipment (fig. 1A, box 160, Firewall/NAT router, Akman)
32. between media gateways (Fig. 1A, box 130 and box 140, Akman)
33. and a media gateway controller (Fig. 1A, box 110, Akman)
34. that locate in different networks (Col. 1, lines 38-44, Akman discloses where a Network Address Translation (NAT) is strategically implemented to inspect and translate control protocol messages exchanged between nodes on separate IP networks, where the nodes are a media gateway controller, and a media gateway that exchange MEGACO messages),
35. the agent equipment providing signaling agent and network address translation between different networks (Col. 1, lines 38-44, Akman discloses where a Network Address Translation (NAT) is strategically implemented to inspect and translate control protocol messages exchanged between nodes where the nodes are a media gateway controller, and a media gateway that exchange MEGACO messages);
36. and requesting to register the media gateway controller from a media gateway; wherein (Col. 4, lines 18-24, Akman discloses that In the MEGACO protocol, when an MG becomes available, it registers itself with its MGC using a Service Change message. Note; the Service Change message is a request message sent from the media gateway in order to be registered with the

media gateway controller. Also, Fig 2A, shows a media gateway registering with a media gateway controller):

37. for a MGCP/MEGACO signaling sent from the media gateway to the media gateway controller (Fig. 2A, Akman discloses a media gateway exchanging MEGACO signaling messages with a media gateway controller)
38. Although Akman teaches: an agent equipment (fig. 1A, box 160, Firewall/NAT router, Akman),
39. and a MGCP/MEGACO signaling sent from the media gateway controller to media gateway sending the request message to corresponding media gateway by the agent equipment (Fig. 2A, Akman discloses a media gateway exchanging MEGACO signaling messages with a media gateway controller.)
40. Akman does not discloses expressly: forwarding according to domain name in endpoint identifier
41. Carson discloses in fig. 3, exchanging MGCP signaling messages according to endpoint IDs. Note, as Carson further discloses in paragraph 0022, each endpoint has a respective endpoint identifier, comprising the domain name of its gateway and a local name within the gateway.
42. Carson and Akman are analogous art because both are from the same field of endeavor dealing specifically with managing MGCP signaling between media gateways and media gateway controllers
43. At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the system of Akman by forwarding according to domain name in endpoint identifiers, as suggested by Carson.
44. The suggestion/motivation for doing so would have been to provide reliably routing of commands and responses between media gateways utilizing an MGCP protocol (Paragraph 0041, Carson)

45. Therefore it would have been obvious to combine Carson with Akman for the benefit of providing reliability in communicating MGCP signaling, to obtain the invention as specified in claim 1.
46. Although the combination of Akman and Carson teach transaction number (Carson, fig. 3, discloses utilizing transaction numbers between media gateways and media gateway controllers)
47. as well as processing a media attribute for a signaling related to media (Fig. 3 as well as paragraph 0023, Carson discloses allocating an RTP port (claimed media attribute) in response to receiving a CRCX signaling message (claimed signaling related to media).)
48. the combination of Akman and Carson do not disclose expressly: if not related-to media, directly replacing a transaction number;
49. Young discloses in fig. 6, box 1234, determining whether a received packet is an SDP/RTP packet (claimed related to media), and if it is determined that the packet is not an SDP/RTP packet then Young further discloses in fig 6, box 1238 replacing a WAN Transaction ID (TID) with a LAN TID (claimed replacing a transaction number). Further more, in fig. 6, box 1236, Young discloses that if it is determined that a packet is an SDP packet then the ALG notes the session ID and modifies the media source port.
50. Young, Akman and Carson are analogous art because they are from similar fields of endeavor dealing specifically with managing signaling between media gateways and media gateway controllers utilizing a Media Gateway Control Protocol

51. At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combination of Akman and Carson by determining whether an incoming packet is related to media in order to replace transaction Identifiers, as suggested by Young.
52. The suggestion/motivation to do so would have been to provide security for communicating media streams such as voice traffic over a network (Paragraph 0008 and 0005, Young)
53. Therefore it would have been obvious to combine Young with Akman and Carson for the benefit of enhancing security in a communication network, to obtain the invention as specified in claim 1.
54. **As per claim 2**, the combination of Akman, Carson and Young teach wherein each of all media gateways under control of same media gateway controller has different domain name (Fig. 1A, Akman discloses where two Media Gateways under the control of a Media Gateway Controller have different domain names),
55. each endpoint identifier includes domain name information of a media gateway (Fig. 1A, discloses that each Media Gateway are identified by a domain name. By way of example, box 140 of fig. 1A discloses a Media Gateway identified as 10.12.2.2),
56. and the media gateway controller distinguishes media gateways according to their domain names in the endpoint identifiers (Col. 3, lines 19-25, Akman discloses that MEGACO is a control protocol that is used by a Media Gateway Controller (MGC) to control at least one Media Gateway (MG). MG's include resources (terminations) that can be identified by IP addresses. When an MGC communicates with an MG using MEGACO, the MEGACO messages carry IP addresses corresponding to specific resources within the MG.).

57. As per claim 3 and 6, the combination of Akman, Carson and Young teach wherein the step of requesting for registering to the media gateway controller from a media gateway further comprises: sending a request message for registering to the media gateway controller from the media gateway (fig. 2A, Akman discloses that In the MEGACO protocol, when an MG becomes available, it registers itself with its MGC using a Service Change message. Note; the Service Change message is a request message sent from the media gateway in order to be registered with the media gateway controller),
58. and recording message identifier of the media gateway received by the agent equipment to generate a piece of information about the media gateway (Fig. 2A, Akman discloses a procedure for a media gateway registering with a media gateway controller. The register request is received by the agent equipment (box 160, Firewall/NAT) which stores (box 220) the Domain and IP address of the media gateway (box 140) in a table. Also, the Firewall/NAT has a port on the first IP network that links to the media gateway);
59. assigning by the agent equipment a new transaction number (fig. 6, box 1238, Young discloses replacing transaction id's)
60. to the request message for registering (Fig. 2A, when box 140 "MG" (claimed media gateway) sends a request message,)
61. to replace original transaction number (fig. 6, box 1238, Young discloses replacing transaction id's)
62. in the request message for registering (Fig. 2A, when box 140 "MG" (claimed media gateway) sends a request message);
63. recording the media gateway sending the request (Fig. 2A, firewall/Nat stores the change of IP addresses in a NAT table, thus recording the sending media gateway),

64. and then forwarding the request message for registering to the media gateway controller (Fig. 2a, "a service change message" (claimed request message) is sent from a media gateway, translated by a firewall/NAT and then forwarded to the media gateway controller);
65. registering the media gateway successfully, and then sending a response message for registering to the media gateway from the media gateway controller (Col. 4, lines 37-41, Akman discloses that the firewall/NAT relays a service change reply message sent by the media gateway controller to complete the registration);
66. and determining the media gateway by the agent equipment according to the new transaction number (paragraph 0031, Carson discloses that commands and responses are correlated between media gateways and media gateway controllers according to transaction numbers. Also see fig. 3, Carson)
67. in the response message for registering (Col. 4, lines 37-41, Akman discloses that a firewall/NAT relays a response message to the media gateway),
68. replacing the new transaction number with the original transaction number (fig. 6, box 1238, Young discloses replacing transaction id's),
69. and then forwarding the response message for registering to corresponding media gateway (Col. 4, lines 37-41, Akman discloses that the firewall/NAT relays a service change reply message sent by the media gateway controller to complete the registration).
70. **As per claim 4 and 7**, the combination of Akman and Young teach wherein the step of replacing a transaction number by the agent equipment further comprises (fig. 6, box 1238, Young discloses replacing transaction id's):
71. for each of request messages sent from the media gateway to the media gateway controller (Fig. 3A, box 140 "MG" (claimed media gateway) sends Notify/Modify (claimed request message) to box 110 "MGC" (claimed media gateway controller)),

72. assigning a new transaction number for a request message by the agent equipment (fig. 6, box 1238, Young discloses replacing transaction id's),
- and recording the media gateway sending the request message (fig. 5, Carson discloses recording information regarding gateway address and endpoint names, along with corresponding messages received.);
- after receiving on the agent equipment a response message for the request message sent by the media gateway controller (Fig. 3a, media gateway sends reply message for request messages sent by the media gateway),
73. finding a corresponding media gateway according to a new transaction number assigned (paragraph 0026 as well as fig. 3, Carson discloses sending a response to a media gateway confirming reception a Notify command, identified by a transactionID),
74. replacing the new transaction number in the response message with original transaction number (. 6, box 1238, Young discloses replacing transaction id's)
75. and then forwarding the response message to the corresponding media gateway (fig. 3a, firewall/NAT relays response messages to the media gateway)
76. **As per claim 5 and 8**, the combination of Akman, Carson and Young teach wherein the step of processing a MGCP/MEGACO signaling that is related to media by the agent equipment further comprises: creating or modifying a corresponding media forwarding port (Fig. 3, Carson discloses a where an RTP port and IP address are established in response to receiving a CRCX and MDCX signaling message)
77. and a forwarding table on the agent equipment (paragraph 0080, Young discloses a port/IP address look-up table)

78. after receiving a signaling for establishing or modifying a connection sent to a media gateway from the media gateway controller (fig. 3a, box 320, Akman discloses a modify message sent from an MGC to an MG);
79. replacing relevant information on media in the signaling with information on corresponding network address of the media forwarding port (Carson discloses replacing an RTP port number in a MDCX message in response to receiving a CRCX signaling message)
80. on the agent equipment (. 1A, box 160, Firewall/NAT router, Akman),
81. and then forwarding the signaling to the media gateway (Carson discloses in Fig. 3, where a MDCX/CRCX signaling message is forwarding to a media gateway);
82. if the signaling is a signaling for creating a connection (Carson discloses in fig. 3, a CRCX message (claimed signaling for creating a connection),
83. further recording on the agent equipment (paragraph 0080, Young discloses a port/IP address look-up table)
84. an endpoint identifier of the connection (Carson discloses in Fig. 5 a call detail record that includes endpoint names. Also, as Carson discloses in paragraph 0022, each endpoint has a respective endpoint identifier, comprising the domain name of its gateway),
85. modifying the forwarding table of a corresponding media forwarding port on the agent equipment (Paragraph 0080, Young discloses a dynamic mapping for a port/IP address table (claimed forwarding table) must be revised (claimed modifying) and ready to transmit RTP or RTCP packets)
86. according to a response signaling when the media gateway sends the media gateway controller the response signaling related to media (Fig. 3, Carson discloses receiving a response for a CRCX signaling message sent from a media gateway to a media gateway controller);

87. replacing media information in the response signaling with information on network address of corresponding media port (Fig. 3, Carson discloses that the response to a CRCX message sent from a gateway includes a replaced RTP port and network address)
88. on the agent equipment (fig. 1A, box 160, Firewall/NAT router, Akman).
89. and then sending to the media gateway controller (Fig. 3, Carson discloses sending a response to a CRCX message to a gateway controller);
90. and sending a signaling for releasing the connection to the media gateway from the media gateway controller after calling finishes (Fig. 3 as well as paragraph 0028, Carson discloses sending a DLCX signaling message (claimed signaling for releasing the connection),
91. releasing the corresponding media forwarding port (Fig. 3 as well as paragraph 0028, Carson discloses sending a DLCX signaling message for releasing the connection and IP resources)
92. on the agent equipment (fig. 1A, box 160, Firewall/NAT router, Akman)
93. according to the endpoint identifier, and then forwarding the signaling to the media gateway (Paragraph 0028, Carson discloses The MGC responds by sending DeleteConnection commands to gateways, which react by removing the associated connections for the specified endpoints (and thus releasing the related IP resources) and sending back confirmatory response messages with appropriate transactionID).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yosief Berhane whose telephone number is (571) 270-7164. The examiner can normally be reached at 9:00-6:00 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached at (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/YOSIEF BERHANE/

Examiner, Art Unit 2419

/Pankaj Kumar/

Supervisory Patent Examiner, Art Unit 2419